

Pandemics, vulnerability and prevention: time to fundamentally reassess how we value and communicate risk?

Article

Published Version

Creative Commons: Attribution 4.0 (CC-BY)

Open Access

Black, D., Bates, G., Gibson, A., Hatleskog, E., Fichera, E., Hathchard, J., Nazmul, H., Rosenberg, J., Larkin, C., Brierley, R., Kidger, J., Bondy, K., Hickman, M., Pain, K., Hicks, B., Scally, G., Verma, A., Carhart, N., Pilkington, P., Hunt, A. and Ireland, P. (2021) Pandemics, vulnerability and prevention: time to fundamentally reassess how we value and communicate risk? *Cities and Health*, 5 (sup1). pp. 593-596. ISSN 2374-8842 doi: <https://doi.org/10.1080/23748834.2020.1811480> Available at <https://centaur.reading.ac.uk/92451/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1080/23748834.2020.1811480>

Publisher: Taylor & Francis

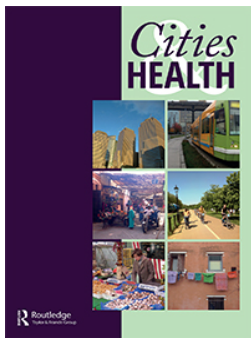
All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online



Pandemics, vulnerability, and prevention: time to fundamentally reassess how we value and communicate risk?

CITIES, HEALTH and COVID-19: Initial reflections and future challenges

Daniel Black , Geoff Bates , Andy Gibson , Eli Hatleskog , Eleonora Fichera , Jenny Hatchard , Hasan Md Nazmul , Ges Rosenberg , Charles Larkin , Rachel Brierley , Judi Kidger , Krista Bondy , Matt Hickman , Kathy Pain , Ben Hicks , Gabriel Scally , Arpana Verma , Neil Carhart , Paul Pilkington , Alistair Hunt & Paddy Ireland

To cite this article: Daniel Black , Geoff Bates , Andy Gibson , Eli Hatleskog , Eleonora Fichera , Jenny Hatchard , Hasan Md Nazmul , Ges Rosenberg , Charles Larkin , Rachel Brierley , Judi Kidger , Krista Bondy , Matt Hickman , Kathy Pain , Ben Hicks , Gabriel Scally , Arpana Verma , Neil Carhart , Paul Pilkington , Alistair Hunt & Paddy Ireland (2020): Pandemics, vulnerability, and prevention: time to fundamentally reassess how we value and communicate risk?, Cities & Health, DOI: [10.1080/23748834.2020.1811480](https://doi.org/10.1080/23748834.2020.1811480)

To link to this article: <https://doi.org/10.1080/23748834.2020.1811480>



© 2020 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 22 Sep 2020.



[Submit your article to this journal](#)



Article views: 434



[View related articles](#)



[View Crossmark data](#)

Pandemics, vulnerability, and prevention: time to fundamentally reassess how we value and communicate risk?

CITIES, HEALTH and COVID-19: Initial reflections and future challenges

Daniel Black^a, Geoff Bates^b, Andy Gibson^c, Eli Hatleskog^a, Eleonora Fichera^b, Jenny Hatchard^a, Hasan Md Nazmul^b, Ges Rosenberg^a, Charles Larkin^{b,d}, Rachel Brierley^a, Judi Kidger^a, Krista Bondy^b, Matt Hickman^a, Kathy Pain^e, Ben Hicks^a, Gabriel Scally^a, Arpana Verma^f, Neil Carhart^a, Paul Pilkington^c, Alistair Hunt^b and Paddy Ireland^a

^aUniversity of Bristol, Bristol, UK; ^bUniversity of Bath, Bath, UK; ^cUWE Bristol; ^dTrinity College Dublin, Johns Hopkins University; ^eUniversity of Reading, Reading, UK; ^fUniversity of Manchester, Manchester, UK

ABSTRACT

For over a decade, pandemics have been on the UK National Risk Register as both the likeliest and most severe of threats. Non-infectious 'lifestyle' diseases were already crippling our healthcare services and our economy. COVID-19 has exposed two critical vulnerabilities: firstly, the UK's failure to adequately assess and communicate the severity of non-communicable disease; secondly, the health inequalities across our society, due not least to the poor quality of our urban environments. This suggests a potentially disastrous lack of preventative action and risk management more generally, notably with regards to the existential risks from the climate and ecological crises.

ARTICLE HISTORY

Received 12 May 2020
Accepted 23 June 2020

KEYWORDS

Non-communicable disease; cities; inequality; vulnerability; risk; priorities

'Vulnerability is the birthplace of innovation and creativity'

Professor Brené Brown,
TED Speaker | 'The Power of Vulnerability'

For over a decade, pandemics have been recognised on the UK National Risk Register as both the likeliest and most severe of threats, just ahead of flooding, severe weather, and terrorism. Yet we are likely to be among the worst hit of OECD nations in terms of both mortality rate as well as economic fallout (OECD 2020). We now know that those with underlying health conditions are more likely to become severely ill from COVID-19. This has thrown a spotlight on two critical vulnerabilities: firstly, the UK's failure to adequately assess and communicate the severity of risk from non-communicable disease (NCD); secondly, the stark differences in health and socio-economic status across our society, not least in the quality of the places in which we live in and to which have access (Marmot *et al.* 2010). These failures suggest a potentially disastrous lack of risk management more generally, and should raise significant concerns with regards to the longer-term, existential threats from the climate and ecological crises. There are numerous causal factors at play, and action is needed on multiple fronts, but effective risk management, including

risk perception and communication, is arguably the most important.

In the UK, NCDs such as heart failure, cancer, obesity, and mental ill-health cause an estimated 89% of deaths, and significant-associated costs from treating morbidity (e.g. obesity alone costs the NHS £5bn per year and an estimated £27bn per year due to its effects on productivity, earnings, and welfare payments; the NHS requires another £5.5bn per year to treating illness from smoking, alcohol, and mental health) (Gov 2017). Climate and ecological impacts, which are linked to NCDs, are likely to dwarf these costs. Medical care is the largest cost facing UK taxpayers, making up almost 10% (c.£200bn) of total annual Government spending; while investment in prevention is marginal (Office for National Statistics 2017). Cardiovascular disease and cancers alone cost the EU economy €200 bn annually in lost productivity from patients and, significantly, their carers. Yet NCDs, it is widely suggested even within Government, are 'to a significant extent, preventable, and the costs ... largely avoidable' (World Health Organization 2014).

The quality of our urban environments plays a significant role in determining our health, both mental and physical. It is no surprise that air quality could well be a factor in COVID-19-related deaths (Wu and Nethery 2020). It's also important to recognise however that we may have far more data on air pollution than any other risk factor; noise and lack of access to nature in

pressure from vested interests to resume business as usual after lockdown, yet history teaches us too that crises can lead to profound and positive change too (Stark 2017, Wright and Nyberg 2017).

This should be non-party political. Until recently in the UK, there was an All-Party Parliamentary Group devoted to 'Health in all Policies'. There is another looking at the 'Limits to Growth', and there has been the recent Inquiry by the Environmental Audit Committee into Planetary Health. Yet little is shifting. At the top of the UK government, our health and the future of our planet appear to be peripheral, disconnected, and compartmentalised: health means health-care; environment means farming and the countryside; urban development means housing numbers not quality of place. Short-term thinking and partial economic measures dominate. Partnerships between cities and forward-thinking private sector partners are already seeking to leapfrog inactive central governments, but there is only so much they can do.

Where decision-makers need help, and where future research might have impact, is not downstream in the generation of yet more evidence of the problem, but upstream in terms of how we transition: How can we comprehensively value and manage socio-environmental risk? How can we prioritise public and planetary health? How can we support and enable structural and institutional transitions? How can we rebalance public and private sector to a healthier equilibrium? And, perhaps most importantly, how can the public support the prioritisation and enactment of transition?

Senior decision-makers from both public and private sector agree that health is not adequately accounted for in urban planning and development, and they support the use of non-market economic valuation in helping us to get a sense of the scale of these challenges and to prioritise action; multiple actions have been identified, and on multiple levels, but much is happening already and there is considerable will to shift and shift radically from all sections of society (Black *et al.* 2020).

The response to the pandemic offers a glimpse of what is both possible when political and social will are aligned. We have a small window for action, and there is no rational alternative. When vulnerable, as we are now, we are forced to acknowledge what has weakened us, and to fundamentally reassess our priorities. Surely now is the time to properly acknowledge and communicate these risks, and embed the prevention of current and future ill-health into the national psyche?

Funding

The TRUUD Consortium has been funded by the UK Prevention Research Partnership (UKPRP), which is made up of the British Heart Foundation, Cancer Research UK,

Chief Scientist Office of the Scottish Government Health and Social Care Directorates, Engineering and Physical Sciences Research Council, Economic and Social Research Council, Health and Social Care Research and Development Division (Welsh Government), Medical Research Council, National Institute for Health Research, Natural Environment Research Council, Public Health Agency (Northern Ireland), The Health Foundation and the Wellcome Trust; UK Prevention Research Partnership [MR/S037586/1].

Notes on contributors

The authors are all part of the TRUUD Consortium ('Tackling the Root causes Upstream of Unhealthy urban Development'). TRUUD is a five-year research program that started in October 2019, involves 42 researchers across five universities, two city and city region partners, and will be engaging with hundreds of practitioner advisors and participants. The academic disciplines include: public health, urban planning and design, policy studies, corporate governance and organisation studies, public health and corporate law, environmental and health economics, systems engineering, and public engagement. TRUUD aims to develop and test a replicable framework model for intervention across multiple leverage points in two major UK cities using economic valuation and the creative arts alongside a major program of stakeholder, decision-maker and public engagement.

ORCID

Daniel Black  <http://orcid.org/0000-0002-1474-6992>
 Neil Carhart  <http://orcid.org/0000-0003-4503-7141>
 Paul Pilkington  <http://orcid.org/0000-0002-5408-361X>

References

- Bank of England, 2015. *Speech given by Mark Carney at Lloyd's of London: breaking the tragedy of the horizon - climate change and financial stability*. <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability> [Accessed 3 April 2020]
- Black, *et al.*, 2020. Overcoming systemic barriers preventing healthy urban development in the UK: main findings from interviewing senior decision-makers during a three-year planetary health pilot. *Journal of urban health* [submitted].
- Eaton, *et al.*, 2020. *Economic valuation of the health impacts of urban environment*. Working Paper. <https://urban-health-upstream.info/>
- Global Government Forum, 2015. *UK 'almost most centralised developed country', says treasury chief*. Available from: <https://www.globalgovernmentforum.com/uk-most-centralised-developed-country-says-treasury-chief/>
- Gov, H.M., 2017. *Select committee on the long-term sustainability of the NHS the long-term sustainability of the NHS and adult social care: chapter 6: public health, prevention and patient responsibility*. <https://publications.parliament.uk/pa/ld201617/ldselect/ldnhssus/151/15109.htm> [Accessed 8 May 2020].
- International Monetary Fund, 2019. *Global fossil fuel subsidies remain large: an update based on country-level estimates*. IMF Working Paper. <https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel->

- Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509 [Accessed 3 April 2020]
- Marmot, *et al.*, 2010. *Fair society, healthy lives. strategic review of health inequalities in England post-2010*. Available from: <http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review/fair-society-healthy-lives-full-report-pdf.pdf>
- Marmot, *et al.*, 2020. *Health equity in England: the Marmot review 10 years on*. The Health Foundation. Available from: <https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on>
- OECD, 2020. *OECD economic outlook, June. 2020: the world economy on a tightrope*. Available from: <http://www.oecd.org/economic-outlook/june-2020/>
- Office for National Statistics, 2017. *Healthcare expenditure, UK health accounts: 2017*. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/bulletins/ukhealthaccounts/2017> [Accessed 8 May 2020].
- Stark, 2017. *New institutionalism, critical junctures and post-crisis policy reform*. <https://www.tandfonline.com/doi/abs/10.1080/10361146.2017.1409335> [Accessed 5 May 2020].
- World Health Organization, 2014. *Non-communicable diseases (NCD) country profiles*. http://www.who.int/nmh/countries/gbr_en.pdf [Accessed 28 March 2017].
- Wright, C. and Nyberg, D., 2017. An inconvenient truth: how organizations translate climate change into business as usual. *Academy of management journal*, 60 (5), 1633–1661. doi:10.5465/amj.2015.0718
- Wu, X. and Nethery, R., 2020. *Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study*. Available from: <https://projects.iq.harvard.edu/covid-pm>